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(54) Title: MULTIPLEX PCR

(57) Abstract: Compositions and methods for nucleic acid amplification are provided that minimize the formation and amplification of spurious products, particularly in multiplex amplification reactions. Linear amplification molecules are provided. A first embodiment comprises a first common primer sequence, a first template homology region, a cleavable site, a second common primer sequence and a second template homology region. Methods employing the linear amplification molecules for nucleic acid amplification are also provided. A first embodiment comprises a template-specific hybridization, a linear amplification, a template-specific intramolecular hybridization, a strand cleavage, a second linear amplification and an exponential amplification using common primers.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/37238

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68, C12P 19/34; C07H 21/02, 21/04, 19/00

US CL : 435/6, 91.1, 91.2; 536/22.1, 23.1, 24.3, 24.31, 24.32, 24.33

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6, 91.1, 91.2; 536/22.1, 23.1, 24.3, 24.31, 24.32, 24.33

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,731,171 A (BOHLANDER) 24 March 1998 (24.03.1998), see whole doc.	1-36

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

PCT/US02/37238

Continuation of B. FIELDS SEARCHED Item 3:

EAST-USPATFULL, DERWENT, JPO,EPO, IBMTECH, PGPUB,

STN-BIOSIS, MEDLINE, CANCERLIT, BIOTECHDS, LIFESCI,CAPLUS,EMBASE

search terms-multiplex, dimer, primer, spurious, linear, amplification , loop, cleavage